grand and the second	Min	ONLY			
Work Order ID 114272  March-04-14 2:59:56 PM	*1	PE			
Item ID: D3391-023 Revision ID: Item Name: Mid Tube Assembly	Accept	*N900	04010	Maid	*NS1*
<b>Start Date:</b> +4 04/03/2014	*1* *1*	Cust Item II Customer:	D:		
Reference:  Approvals: Process Plan: QC:	Date: <u>\\\-\\\\-\\\\\\\\\\\\\\\\\\\\\\\\\\\\</u>	Da	·		*NR1*
Sequence ID/ Operation Work Center ID Description	Set Up/ Run Ho		Tool# Plan Code	Accept Reject Qty Qty	Reject Insp. Number Stamp
Draw Nbr Revision Nbr  D3391 I					
100  *100* Skidtubes  Memo Skidtubes  1-Cut tube to	0.00 0.00 o finish length as per Dwg D3391				
2-Drill pilot saddle hole o	holes using DT8796 (Do not drill "B" holes on one side only as per Dwg D3391 fles and GHW holes to Ø0.375" exept for fw	,			
5-Remove in	030" from Fwd indexing Ridge as per Dwg I	•			· / ·
paint marker ***DO NOT	pilot holes using wearplate Jig DT8217 Iden τ, Γ DRILL HOLES #3-19-20 FROM FWD En rplate holes of D3391-023 assembly detail s	ND OF JIG		BE 14-06	-24

(10 holes) as per Dwg D3391

9-Open wearplate holes of D3391-023 assembly detail section H-H to Ø0.297" (20 holes) as per Dwg D3391
\*\*\*DO NOT OPEN 2 MOST FWD WEARPLATE HOLES\*\*\*

DQA:		Date:												
OA Classide		Data			WORK ORDER NON	-C(	ONFO	RMANCE / UPD					AEROSPACE	
QA Closed:		Date:					·			vvo	rk Order up	date only	•	_
Work Orde	r:				DISPOSITION	İ			AGAINST [	DEF	PARTMENT	/PROCESS		
					Rework			Skid-tube (	Crosstube			Water Jet	Engineering	
Part N	0.				Scrap			<b></b>	Small Fab		Pro	d. Eng. Coor.	Quality	
					Use-as-is		Therr	noforming	Finishing			e/Packaging	Other	
NCR N	0				Suspected Unapproved			Large Fab C	Composite			Supplier		
Root		ļ		Desci	ription of work order update	i	nitial	Action			Sign &			4
Cause	Date	Step	Qty	,	or non-conformance	Ch	ief Eng	Descripti	ion	ŀ	Date	Verification	QC Inspector	
Design														7
Doc/Data														١
quip/Tooling										1			i 	
Handling/Pre														
Material													İ	
Operator		}									•		ļ	١
Offset/Setup												•6		
Process														
Supplier														١
Training										ľ				I
Fransport														
Jnapproved														╛
						FA	AULT CATEGORY							
Landin	g Gear				General		i .		_	_		_	_	
-	Bending				Bend		1	Program	-	$\dashv$	Outside Dim	<b>⊢</b>	Pressure/Forced	1
	Centre No	ot Concei	ntric	<u> </u>	BOM/Route		Grain		-		Over/Under	<del> </del>	Set-up	
1	Cracks			<u> </u>	Broken/Damage/Defect		Hardwa				Part Incorred	<u> </u>	Temperature/Cure	
	Crimp/Kink/Ripple/Wave			<b>—</b>	Burrs		1	ion Incomplete/Unqua		$\neg$	Part Lost/Mi	ssing	Weld	
Ļ	Cuffs			$\vdash$	Contamination	<u> </u>	4	ions Incomplete/Uncl	lear		Part Moved		Wrong Stock Pulled	
	Crushing			<u> </u>	Countersink	_	1	gned/off center		_	Positioned V	_	¬	
}	<del></del>			Cut Too Short	_	Mislabe		L		Power Loss/	Surge	Other	4	
ļ.	Inspection Strip in Tube Drawing				_	Misread								4
	Marks/Chatter Drill Holes					_	Off-set			-	·			4
ļ	Turning S	-			Finish	Out of Calibration					4			
	Wave/Tw	ist in Tul	oe		Fit/Function		Out of S	Sequence						_ }

Page 2

March-04-14 2:59:56 PM

Revision ID:	D3391-023	à.	·	Accept	*N900	004010	<b>n*</b>	Setup Start Stop	*NS1*
	Mid Tube Ass 04/03/2014 04/03/2014	Start Qty: 1.00 Req'd Qty: 1.00	*1 <sup>3</sup>	_	Cust Item Customer:				*NS2*
Approvals:	Process Pla	n:	Date:	Tooling:	D	)ate:	ŀ	Run Start	*NR1*
;	QC:		Date:	<b>SPC (Y/N):</b>	D	)ate:		, Stop	*NR2*
Sequence ID/ Work Center II		11-Locate D  12- Transfer remaining from the diagram of the constraint of the constr	or drill one fwd saddle wd saddle holes using t-pins and clicos ed pilot holes in D33' BATCH:  DT8217, locating from the D3391-021.  g from two fwd wear les in D3391-021 using the page of th	plate holes in D3391-023 dri	ofer drill all viusly drill .188 open up previusly . D3391-021 drill remaining	Tool # Plan Code  Language  Language  Language  Tool # Plan  Code	Accept Qty	-	Reject Insp. Number Stamp
november of the control of the contr			3391-021 into D339 -pins into first and th	1-23 ird fwd saddle holes					
		as per		l out 2nd and forth fwd sadd out 2nd and forth saddle hol		\ ND		:	
· ·		20-Deburr a at aft end.	and blow out all chip	s from inside tube, scribe bat	ch # in D3391-023		14-6	210	

DQA:		Date:			WORK ORDER NON-CONFORMANCE / UPDATE							
QA Closed:		Date:			WORK ORDER NOW	-((	JINFO	RIVIANCE / OPDATE	W	ork Order up	odate only	AEROSPACE
Work Orde					DISPOSITION			AGAIN:	ST DE	PARTMENT	/PROCESS	
Part N				,	Rework Scrap			Skid-tube Crosstub	_	Dro	Water Jet	Engineering
NCR N	. =		· · · · · · · · · · · · · · · · · · ·		Use-as-is Suspected Unapproved			noforming Finishir Large Fab Composi	ng _		d. Eng. Coor. re/Packaging Supplier	Quality Other
Root				Descr	iption of work order update		nitial	Action		Sign &		· ·
Cause	Date	Step	Qty		or non-conformance	Ch	ief Eng	Description		Date	Verification	QC Inspector
Design Doc/Data											4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Equip/Tooling Handling/Pre											200	* <u>*</u>
Material Operator	<u> </u>										·	,
Offset/Setup												
Process												
Supplier				,300						,		
Fraining 、					•							
Fransport												
Jnapproved												
						FAI	ULT CAT	TEGORY				
Landin	g Gear				General		•					,
_	Bending				Bend		Folio/F	'rogram		Outside Dim	ensions	Pressure/Forced
_	Centre No	ot Conce	ntric		BOM/Route		Grain			Over/Under	tolerance	Set-up
_	Cracks				Broken/Damage/Defect		Hardwa	re		Part Incorred	<del></del>	Temperature/Cure
	Crimp/Kir	nk/Ripple	e/Wave		Burrs		Inspect	ion Incomplete/Unqualified		Part Lost/Mi	ssing	Weld
	Cuffs				Contamination		4	ions Incomplete/Unclear	L	Part Moved	L	Wrong Stock Pulled
				Countersink		1	ned/off center		Positioned V		-	
	Heat Treat Cut Too Short				Cut Too Short	L	Mislabe	eled		Power Loss/	Surge	Other
Ļ	Inspection Strip in Tube Drawing				$ldsymbol{f eta}$	Misread						
Ĺ	Marks/Chatter Drill Holes				Drill Holes	Off-set						
Ĺ	Turning S	equence			Finish	Out of Calibration						
	. Wave/Tw	ist in Tul	be		Fit/Function	L	Out of 9	Sequence				

\_H:/FORMS/Quality Assurance\approved QA/NCRWO RevH

<b>Work Order ID 1142</b>
---------------------------

# \*114272\*

Page 3 March-04-14 2:59:56 PM Item ID: D3391-023 Accept \*N900040100\* Setup Start Revision ID: Stop Item Name: Mid Tube Assembly Start Date: 04/03/2014 Start Otv: 1.00 **Cust Item ID:** Required Date: 04/03/2014 Req'd Otv: 1.00 \*1\* **Customer:** Reference: Run Start Approvals: Date: Tooling: Process Plan: Date: Stop OC: Date: SPC (Y/N): Date: Sequence ID/ Operation ' Set Up/ Tool ID Tool # Plan Accept Reject Reject Insp. Work Center ID Description Run Hours Code Otv Number Stamp Otv 110 QC5- Inspect part completeness to step on W/O 0.00 \*110\*  $00^{-}$ 0.00 Memo Quality Control 120 Chemical Conversion Coat per OSI005 4.1 0.00 \*120\* HandFinish 0.00 Memo BE \_1 06-24 Hand Finishing 130 QC7-Inspect Chemical Conversion Coat 0.00 \*130\* OC 0.00 Memo Quality Control

DQA:			Date:											
QA Closed:			Date:			WORK ORDER NON	-C(	ONFO	RMANCE / UPDATE	W	ork Order up	odate only	AEROSPACE	
Work Orde	or.					DISPOSITION			AGAINS	T DE	PARTMENT	/PROCESS	•	
WOIN OIG	··· –			···	_	Rework	]		Skid-tube Crosstub	٦	1	Water Jet	Engineering	
Part N	lo.					Scrap	1		Machining Small Fa		Pro	d. Eng. Coor.	Quality	
	_				_	Use-as-is	1		noforming Finishin		1	e/Packaging	Other	
NCR N	lo.					Suspected Unapproved	1		Large Fab Composit		1	Supplier	1   1	
											-			
Root					Descr	ription of work order update	Ţ	nitial	<b>Act</b> ion		Sign &			
Cause	$\perp$	Date	Step	Qty		or non-conformance	Ch	ief Eng	Description		Date	Verification	QC Inspector	
Design	_			<b>!</b>		·•								
Doc/Data					i									
Equip/Tooling	_													
Handling/Pre		•												
Material					÷									
Operator	_							•	·					
Offset/Setup	_													
Process	_	,	•											
Supplier	_													
Training	4				/ 5	·	l							
Transport	4		•				İ							
Jnapproved		`				,	<u> </u>				<u> </u>	-	<u> </u>	
			<u> </u>				FA	ULT CAT	regory					
Landir I	$\overline{}$					General		]			1 <sub>0</sub>		7	
		Bending			_	Bend BOM/Pauta	$\vdash$	•	Program	$\vdash$	Outside Dim		Pressure/Forced	
• ,	— -	entre No	t Concer	itric		BOM/Route	-	Grain		$\vdash$	Over/Under		Set-up	
` .	_	racks	l /Dinnlo	Maui		Broken/Damage/Defect	$\vdash$	Hardwa	ire ion Incomplete/Unqualified	$\vdash$	Part Incorred	<b>⊢</b>	Temperature/Cure Weld	
	—	Crimp/Kin	K/Kippie	/ wave	-	Burrs	-	1 '	• • •	-	Part Lost/Mi Part Moved	- SSITIE	Wrong Stock Pulled	
		Customination Countersink				$\vdash$	4	ions Incomplete/Unclear gned/off center	$\vdash$	Positioned V	/rong	J Wrong Stock Pulled		
	Crushing Countersink Heat Treat Cut Too Short					$\vdash$	Mislabe		-	Power Loss/		Other		
	Inspection Strip in Tube Drawing				Misread			L L	Totalei					
	Marks/Chatter Drill Holes					Off-set								
ŀ						Out of Calibration								
	Wave/Twist in Tube					Fit/Function	Out of Sequence					•		
				77.7		· · · · · · · · · · · · · · · · · · ·								

Page 4 March-04-14 2:59:56 PM Item ID: D3391-023 Accept \*N900040100\* Setup Start **Revision ID:** Stop Mid Tube Assembly **Item Name: Start Qty:** 1.00 **Start Date:** 04/03/2014 **Cust Item ID: Required Date:** 04/03/2014 **Req'd Qty:** 1.00 \*1\* **Customer:** Reference: Run Start Date: Process Plan: **Tooling:** Approvals: Date: Stop Date:\_\_\_ QC: SPC (Y/N): Date: Operation Sequence ID/ Tool ID Reject Set Up/ Tool # Plan Accept Reject Insp. Work Center ID **Description Run Hours** Code Qty **Qty** Number Stamp 140 0.00 Skidtubes \*140\* Skidtubes 0.00 Memo Skidtubes 1-Open float bag holes as per dwg 2-C'sink float bag holes as per dwg 3- Prepare tube for welding 4-Bond web in place as per Dwg D3391 & QSI 015. Adhere for 12 hours) A/R Sikaflex exp: 14-11-20 batch#: M129457 DAS NOTE: ENSURE WEB IS INSERTED IN AFT END OF TUBE

150

QC5- Inspect part completeness to step on W/O

0.00

\*150\*

QC

Memo

0.00

0 1406-25

**Quality Control** 

DQA:			_ Date:												
						WORK ORDER NON-CONFORMANCE / UPDATE									
QA Closed:			Date:							W	ork Order up	odate only			
Work Ord	er:					DISPOSITION				AGAINST D	EPARTMENT,	/PROCESS			
						Rework	]		Skid-tube	Crosstube	7	Water Jet	Engineering	l	
Part I	No.					Scrap	1		<b>—</b>	Small Fab	Pro	d. Eng. Coor.	Quality	ĺ	
						Use-as-is		Therr	noforming	Finishing	Rec/Sto	re/Packaging	Other	l	
NCR I	۱o.					Suspected Unapproved	]		Large Fab C	Composite		Supplier			
<b>D</b> - 4			· ·	-	D	· · · · · · · · · · · · · · · · · · ·			1 4		C: 0		<del></del>		
Root		Data	Cton	O+1.	Desc	ription of work order update		Initial	Action		Sign &	Manifiantian	06 lunan satan		
Cause		Date	Step	Qty		or non-conformance	Cr	ief Eng	Descript	ion	Date	Verification	QC Inspector		
Design Doc/Data															
Equip/Tooling															
Handling/Pre															
Material											·				
Operator															
Offset/Setup														•	
Process															
Supplier					,	*				· i			4.4		
Training			,												
Transport				-											
Unapproved									<u></u>						
		· Line				· · · · · · · · · · · · · · · · · · ·	FA	ULT CA	regory						
Landi	ng (	1			_	General		1		_	7		¬₋ ′₋ .		
		Bending		4	-	Bend BOM/Barres		1	Program	<u> </u>	Outside Dim	<b>—</b>	Pressure/Forced		
		Centre No	ot Concen	itric	-	BOM/Route		Grain		<u> </u>	Over/Under		Set-up Temperature/Cure		
		Cracks Crimp/Kir	ak/Pinnla	/\ <i>M</i> /avo		Broken/Damage/Defect		Hardwa	ire ion Incomplete/Unqu	alified	Part Incorred Part Lost/Mi	<b>⊢</b>	Weld		
		Cuffs	ik/kippie/	/ wave	-	Burrs Contamination	<del> </del>	1 '	tions Incomplete/Unc		Part Moved	231118	Wrong Stock Pulled	4	
		i				Countersink	$\vdash$	4	gned/off center	-	Positioned V	∟ Vrong		,	
		Crushing Heat Treat		<u> </u>	Cut Too Short	$\vdash$	Mislabe			Power Loss/		Other			
	Inspection Strip in Tube			Tube		Drawing	$\vdash$	Misread						_	
		Marks/Chatter				Drill Holes		Off-set							
	Turning Sequence					Finish		Out of (	Calibration						
		Wave/Twist in Tube				Fit/Function		Out of Sequence							

March-04-14 2:59:56 PM

# \*114272\*

Page 5

Item ID: D3391-023 Accept \*N900040100\* Setup Start **Revision ID:** Stop Mid Tube Assembly **Item Name:** \*1\* Start Date: 04/03/2014 Start Oty: 1.00 **Cust Item ID: Required Date:** 04/03/2014 Req'd Qty: 1.00 \*1\* **Customer:** Reference: Run Start Process Plan: Date: \_\_\_\_ **Tooling:** Approvals: Date: Stop OC: Date: SPC (Y/N): Date: Sequence ID/ Operation Tool ID Set Up/ Tool # Plan Reject Reject Accept Insp. **Work Center ID** Description Qty Qty Number Stamp **Run Hours** Code 0.00 Skidtubes \*160\* Skidtubes 1-Weld crossbolt spacer as per dwg D3391 & QSI 004 AIR mia9a 85 BE1406-25 Skidtubes 2-grind weld flush 14-6-25 170 QC10- Inspect visual per OSI004- ground welds 0.00 \*170\* OC 0.00 Memo Quality Control 180 QC5- Inspect part completeness to step on W/O 0.00 \*120\* QC 0.00 Memo Quality Control

Work Order:  Part No.  Part No.  NCR No.    Disposition   Rework   Scrap   Use-as-is   Suspected Unapproved   Use-as-is   Large Fab   Composite   Sign & Description of work order update   Chief Eng   Description    DQA:			_ Date:													
DISPOSITION   Rework   Scrap   Disposition   Rework   Scrap   Disposition   Rework   Scrap   Disposition   Rework   Scrap   Disposition   Di																
Rework   Scrap   Use-as-is   Suspected Unapproved   Suspected Unapproved   Initial   Action   Cause   Date   Step   Qty   Description of work order update   Order update	QA Closed:			Date:							W	ork Order up	date only		<u> </u>	
Rework Scrap Use-as-is Suspected Unapproved Unapproved United Date Step Otto Production Operator Opera	Work Orde	er:					DISPOSITION				AGAINST D	EPARTMENT,	/PROCESS		٠	
Part No.		•					Rework	1		Skid-tube	Crosstube	٦	Water Jet		Engineering	
NCR No. Suspected Unapproved Use-as-is Suspected Unapproved Use-as-is Suspected Unapproved Use-as-is Suspected Unapproved Use-as-is Suspected Unapproved Use-as-is Suspected Unapproved Use-as-is Suspected Unapproved Use-as-is Suspected Unapproved Use-as-is Suspected Unapproved Use-as-is Suspected Unapproved Use-as-is Suspected Unapproved Use-as-is Suspected Unapproved Unapproved Use-as-is Suspected Unapproved Unappr	Part N	No.					l —			<b>—</b>	— —	Pro	i	$\neg$	· · · · · · · · · · · · · · · · · · ·	
Root Cause Date Step Qty Description of work order update or non-conformance Chief Eng Description Design Dec/Data Gequip/Tooling Handling/Pre Material Departure Offset/Setup Process Supplier Training Training Centre Not Concentric Cracks Crimp/Kink/Ripple/Wave Design Bom/Route Set-up Bom/Route Grain Hardware Crimp/Kink/Ripple/Wave Design Contensination Contensination Contensination Countersink Misaligned/off center Power Loss/Surge Defice Design Tous Process Supplied Part Moved Word Stock Pulled Power Loss/Surge Other Description OC Inspector Date of Power Loss/Surge Defice Description Date Verification QC Inspector Date Verification QC Inspe		•				<del></del>	· —			· —	Finishing	-	-		· —	
Cause Date Step Qty or non-conformance Chief Eng Description Date Verification QC Inspector  Design Decorbate Stupio/Tooling Handing/Pre H	NCR N	۷o.					Suspected Unapproved			Large Fab	Composite		Supplier			
Cause Date Step Qty or non-conformance Chief Eng Description Date Verification QC Inspector  Design Decorbate Stupio/Tooling Handing/Pre H																
Design   Dec/Data   Equip/Tooling   Handling/Pre	Root					Desc	-	1								
Doc/Data   Equip/Tooling   Handling/Pre   Material   Doperator   Offset/Setup   Process   Supplier   Training   Training   Training   Training   Training   Centre Not Concentric   BoM/Route   Broken/Damage/Defect   Hardware   Part Incorrect   Temperature/Cure   Temperature/Cure   Cracks   Crimp/Kink/Ripple/Wave   Burrs   Inspection Incomplete/Unqualified   Part Lost/Missing   Weld   Wrong Stock Pulled   Part Moved   Wrong Stock Pulled   Power Loss/Surge   Other   Drawing   Misread   Misread   Misread   Drill Holes   Off-set   Misread   Drill Holes   Off-set   Drill Holes   Off-set   Drill Holes   Off-set   Of	Cause		Date	Step	Qty		or non-conformance	Ch	nief Eng	Descrip	tion	Date	Verificatio	<u> </u>	QC Inspector	
Handling/Pre   Handling/Pre   Handling/Pre   Handling/Pre   Handling/Pre   Handling/Pre   Handling/Pre   Handling/Pre   Handling/Pre   Handling/Pre   Handling/Pre   Handling/Pre   Handling   Handl	Design	Ш												-		
Handling/Pre Material Operator Offset/Setup Process Supplier Training Transport Unapproved Material Operator Offset/Setup Process Supplier Offset/Setup Process Supplier Offset/Setup Process Supplier Offset/Setup Process Supplier Offset/Setup Process Supplier Offset/Setup Process Supplier Offset/Setup Process Supplier Offset/Setup Process Supplier Offset/Setup Process Supplier Offset/Setup Process Supplier Offset/Setup Process Supplier Offset/Setup Process Supplier Offset/Setup Process Supplier Offset/Setup Process Supplier Offset/Setup Process Set-up Proc		Щ					•			}						
Material Operator Offset/Setup Process Supplier Training Transport Unapproved Part FAULT CATEGORY  Landing Gear General Bending Centre Not Concentric Broken/Damage/Defect Broken/Damage/Defect Hardware Part Incorrect Temperature/Cure Crimp/Kink/Ripple/Wave Cuffs Contamination Instructions Incomplete/Unqualified Part Lost/Missing Weld Cuffs Crountering Countersink Misalgheeld Process World Power Loss/Surge Other    Inspection Strip in Tube   Drawing Missead   Marks/Chatter   Drill Holes   Off-set   Inspection Incomplete   Inspecti																
Operator Offset/Setup Process Supplier Training Transport Unapproved  Landing Gear  Bending Centre Not Concentric Cracks Crimp/Kink/Ripple/Wave Cortimp/Kink/Ripple/Wave Cuffs Cuffs Countersink Cuffs Countersink Countersink Countersink Countersink Cuffs Countersink Countersink Cuffs Countersink Cuffs Countersink Cuffs Countersink Cuffs Countersink Cuffs Countersink Cuffs Countersink Cuffs Countersink Cuffs Countersink Cuffs Countersink Cuffs Countersink Cuffs Countersink Cuffs Countersink Cuffs Countersink Cuffs Countersink Cuffs Countersink Cuffs Countersink Cuffs Countersink Cuffs Countersink Cuffs Countersink Misaligned/off center Cuffs Countersink Misaligned/off center Cuffs Countersink Cuff Too Short Misalbeled Misread Off-set  Off-set	_	Н														
Offset/Setup Process Supplier Training Transport Unapproved  Landing Gear  Bending Centre Not Concentric Cracks Cracks Cracks Crimp/Kink/Ripple/Wave Cracks Crimp/Kink/Ripple/Wave Cutts Cracks Cutts		Н														
Process Supplier Training Transport Unapproved    Description   Descript		$\vdash$														
Supplier Training Transport Unapproved  Training Transport Unapproved  Training Transport Unapproved  Teading Gear  General  Bending Centre Not Concentric Cracks Broken/Damage/Defect Hardware Crimp/Kink/Ripple/Wave Cuffs Contamination Cuffs Countersink Countersink Cuffs Countersink Cuffs Countersink Cuffs Countersink Cuffs Countersink Cuffs Countersink Cuffs Countersink Cuffs Countersink Cuffs Countersink Misaligned/off center Inspection Strip in Tube Drawing Marks/Chatter  Drill Holes  FAULT CATEGORY  Folio/Program Outside Dimensions Over/Under tolerance Set-up Temperature/Cure Part Incorrect Temperature/Cure Wrong Stock Pulled Part Moved Wrong Stock Pulled Positioned Wrong Power Loss/Surge Other																
Training Transport Unapproved		$\vdash$														
Transport Unapproved		М														
FAULT CATEGORY  Landing Gear  Bending Bend Centre Not Concentric Cracks Crimp/Kink/Ripple/Wave Cuffs Contamination Crushing Crushing Heat Treat Inspection Strip in Tube Marks/Chatter  FOlio/Program Folio/Program Outside Dimensions Pressure/Forced Grain Over/Under tolerance Set-up Part Incorrect Temperature/Cure Inspection Incomplete/Unqualified Part Lost/Missing Weld Wrong Stock Pulled Part Moved Wrong Stock Pulled Power Loss/Surge Other Other	Transport										•					
Landing Gear  Bending Bending Centre Not Concentric Cracks Crimp/Kink/Ripple/Wave Cuffs Crushing Crushing Heat Treat Inspection Strip in Tube Marks/Chatter  Bend Folio/Program Outside Dimensions Pressure/Forced Grain Over/Under tolerance Set-up Part Incorrect Temperature/Cure Inspection Incomplete/Unqualified Instructions Incomplete/Unqualified Instructions Incomplete/Unclear Misaligned/off center Mislabeled Misread Off-set  Outside Dimensions Pressure/Forced Set-up Part Incorrect Temperature/Cure Part Moved Wrong Stock Pulled Misaligned/off center Power Loss/Surge Other	Unapproved															
Bending Bend Folio/Program Outside Dimensions Pressure/Forced Centre Not Concentric BOM/Route Grain Over/Under tolerance Set-up Cracks Broken/Damage/Defect Hardware Part Incorrect Temperature/Cure Crimp/Kink/Ripple/Wave Burrs Inspection Incomplete/Unqualified Instructions Incomplete/Unqualified Part Lost/Missing Weld Cuffs Contamination Instructions Incomplete/Unclear Part Moved Wrong Stock Pulled Crushing Countersink Misaligned/off center Positioned Wrong Heat Treat Cut Too Short Mislabeled Power Loss/Surge Other Inspection Strip in Tube Drawing Misread Marks/Chatter Drill Holes Off-set						·		FA	ULT CA	TEGORY						
Centre Not Concentric BOM/Route Grain Over/Under tolerance Set-up Temperature/Cure Temperature/Cure Unspection Incomplete/Unqualified Part Lost/Missing Weld Wrong Stock Pulled Crushing Countersink Misaligned/off center Power Loss/Surge Other  Inspection Strip in Tube Marks/Chatter Drill Holes Off-set  BOM/Route Grain Over/Under tolerance Set-up Temperature/Cure Part Incorrect Temperature/Cure Part Lost/Missing Weld Part Moved Wrong Stock Pulled Part Moved Other Power Loss/Surge Other	Landi	ng C	Gear				General		-		_	_				
Cracks Broken/Damage/Defect Hardware Part Incorrect Temperature/Cure Crimp/Kink/Ripple/Wave Burrs Inspection Incomplete/Unqualified Part Lost/Missing Weld Cuffs Contamination Instructions Incomplete/Unclear Part Moved Wrong Stock Pulled Crushing Countersink Misaligned/off center Positioned Wrong Heat Treat Cut Too Short Mislabeled Power Loss/Surge Other Inspection Strip in Tube Drawing Misread Marks/Chatter Drill Holes Off-set			_					L	-1	Program	_	<b>-</b> -		-		
Crimp/Kink/Ripple/Wave Burrs Inspection Incomplete/Unqualified Cuffs Contamination Instructions Incomplete/Unclear Part Lost/Missing Weld Wrong Stock Pulled Crushing Countersink Misaligned/off center Positioned Wrong Heat Treat Cut Too Short Mislabeled Power Loss/Surge Other Inspection Strip in Tube Drawing Misread Marks/Chatter Drill Holes Off-set				ot Concen	ntric		·	_	1		Ļ	-1		-	*	
Cuffs Contamination Instructions Incomplete/Unclear Part Moved Wrong Stock Pulled Crushing Countersink Misaligned/off center Positioned Wrong Heat Treat Cut Too Short Mislabeled Power Loss/Surge Other Inspection Strip in Tube Drawing Misread Marks/Chatter Drill Holes Off-set		$\vdash$	Cracks				•		-i			-		_	•	
Crushing Countersink Misaligned/off center Positioned Wrong Heat Treat Cut Too Short Mislabeled Power Loss/Surge Other Inspection Strip in Tube Drawing Misread Marks/Chatter Drill Holes Off-set	i	<b>—</b>			/Wave	<u> </u>		-	<b>-</b> i		<u> </u>	<b>⊣</b>	ssing	-		
Heat Treat Cut Too Short Mislabeled Power Loss/Surge Other Inspection Strip in Tube Drawing Misread Marks/Chatter Drill Holes Off-set		<u></u>				-	4	<u> </u>	4	•	clear		ļ		Wrong Stock Pulled	
Inspection Strip in Tube Drawing Misread Off-set		<b>H</b>					4	<u> </u>	-1		<u> </u>	_	•		Othor	
Marks/Chatter Drill Holes Off-set	: 	<b>⊢</b>				$\vdash$	1	$\vdash$	-		L	Trower ross/	ourge		Other	
		<del>  </del>				$\vdash$	_	$\vdash$	-1							
Limin Control Computation		<b>├</b>						$\vdash$	┥							
Wave/Twist in Tube Fit/Function Out of Sequence		<del></del>											· · ·			

### \*114272\*

Page 6

March-04-14 2:59:56 PM Accept D3391-023 Item ID: \*N900040100\* Setup Start **Revision ID:** Stop **Item Name:** Mid Tube Assembly \*1\* Start Qty: 1.00 **Start Date:** 04/03/2014 **Cust Item ID: Required Date:** 04/03/2014 **Req'd Qty:** 1.00 \*1\* **Customer:** Reference: Run Start Process Plan: \_\_\_\_\_ Date: \_\_\_\_ **Tooling:** Approvals: Date: Stop Date: SPC (Y/N): Date: OC: Sequence ID/ Operation Set Up/ Tool ID Tool # Plan Accept Reject Reject Insp. Work Center ID Qty Number Stamp **Description Run Hours** Code Oty 185 Pressure Wash per QSI005 4.3 0.00 164625 \*125\* HandFinish 0.00 Memo Hand Finishing AND REALODINE AS PER PAR09-043 190 White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum 0.00 4-6-36 33 \$ M 128959. \*190\* Powdercoat 0.00 START TIME: **Powder Coating** FINISH TIME: 200 QC3- Inspect Part Finish 0.00 \*200\* 0.00 Memo Quality Control

DQA:	s =	Date:			WORK ORDER NON-CONFORMANCE / UPDATE									DART
QA Closed:		Date:			WORK ORDER NON-	-C(	JINFUI	RIVIAINCE / UI	PUATE	W	ork Order u <sub>l</sub>	odate only		AEROSPACE
Work Ordo				Ì	DISPOSITION				AGAINST	DE	PARTMENT	/PROCESS		
Work Orde Part N NCR N	0.				Rework Scrap Use-as-is Suspected Unapproved			Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite		4	Water Jet d. Eng. Coor. re/Packaging Supplier		Engineering Quality Other
Root Cause	Date	Step	Qty	Desci	ription of work order update or non-conformance		Initial iief Eng	Acti Descr			Sign & Date	Verification	n	QC Inspector
Design Doc/Data Equip/Tooling Handling/Pre Material Deerator Offset/Setup Process Hupplier Training Transport Unapproved														
•						FAI	ULT CAT	EGORY		,				
Landin	Bending Centre Not Concentric Cracks Crimp/Kink/Ripple/Wave Cuffs Crushing Heat Treat Inspection Strip in Tube Marks/Chatter Turning Sequence				General Bend BOM/Route Broken/Damage/Defect Burrs Contamination Countersink Cut Too Short Drawing Drill Holes Finish		Grain Hardwa Inspecti Instruct Misalig Mislabe Misread Off-set	on Incomplete/Un ions Incomplete/U ned/off center led	•		Outside Dim Over/Under Part Incorred Part Lost/Mi Part Moved Positioned V Power Loss/	tolerance ci ssing Vrong		Pressure/Forced Set-up Temperature/Cure Weld Wrong Stock Pulled Other
<u> </u>	Wave/Tw				Fit/Function		Out of Cambration Out of Sequence							

Work Orde March-04-14 2:		4272		*114272*											
Revision ID:	D3391-023	o makily.		Accept	*N90004	<b>L</b> 0100	<b>)*</b> Se	tup Star							
. !	Mid Tube Ass 04/03/2014 04/03/2014	Start Qty: 1.00 Req'd Qty: 1.00	*1* *1*		Cust Item ID: Customer:			,	*NS2*						
Approvals:	Process Pla	nn:	Date:	Tooling: SPC (Y/N):	Date: Date:		Rı	ın Staı Sto	"INH I"						
Sequence ID/ Work Center II	)	Operation Description		Set Up/ Run Hours		ol # Plan Code	Accept Qty	Reject Qty	Reject Insp. Number Stamp						
*230* HandFinish Hand Finishing		HandFinishing  Memo  → 1- press fit	D3591-1 spacers using DT	0.00 9416 starting from 0.5	500" side 12/12)			4.	XI WO6/2/						
240 **240* QC Quality Control		QC5- Inspect part comp		0.00 DAS 27 9.89 0.00	dela				<u> </u>						
250 <b>*950*</b> Packaging		Identify as per dwg & S	tock Location:\	N 14.001	JUN 2 6 2014	8	DAS								

Packaging

DQA:			Date:			_								
						WORK ORDER NON-CONFORMANCE / UPDATE								
QA Closed:			Date:						·	W	ork Order up	date only		
Work Ord	er:					DISPOSITION			AGAINST	DE	PARTMENT	PROCESS		
						Rework			Skid-tube Crosstube		1	Water Jet	$\neg$	Engineering
Part I	No.					Scrap			Machining Small Fab	$\vdash$	Pro	d. Eng. Coor.	$\dashv$	Quality
						Use-as-is			noforming Finishing	_	4	e/Packaging		Other
NCR I	Vo.					Suspected Unapproved			Large Fab Composite	_	1	Supplier	T	
			-											•——
Root					Desc	ription of work order update		Initial	Action		Sign &			·
Cause		Date	Step	Qty		or non-conformance	Ch	ief Eng	Description		Date	Verification	<u> </u>	QC Inspector
Design														
Doc/Data														
Equip/Tooling														
Handling/Pre														
Material														
Operator													-	
Offset/Setup														
Process														
Supplier														
Training														
Transport	Н													
Unapproved			<u> </u>						[					
							HAU	ULI CA	regory					
Landi	ng C	Bending				<b>General</b> Bend		lealia/D	Program		Outside Dime	: Г	$\overline{}$	Dunnarium /Farrand
		Centre No	ot Concen	tric	<u> </u>	BOM/Route		Grain	Tograffi	$\vdash$	Over/Under		$\dashv$	Pressure/Forced Set-up
	Н	Cracks	or Concern	iti it		Broken/Damage/Defect		Hardwa	uro	-	Part Incorrec	F		Temperature/Cure
			k/Rinnle	/\ <i>\</i> /2\/p	<u> </u>	Burrs		ł	ion Incomplete/Unqualified	$\vdash$	Part Lost/Mis	-	-	Weld
		Crimp/Kink/Ripple/Wave			]	Contamination		1	ions Incomplete/Unclear	$\vdash$	Part Moved	ssirig		Wrong Stock Pulled
	-	Cuffs Crushing				Countersink	$\overline{}$		ned/off center	-	Positioned W	/rong		THI ONE STOCK FUNCU
	Heat Treat				<b> </b>	Cut Too Short	_	Mislabe	•	$\vdash$	Power Loss/S			Other
	Inspection Strip in Tube					Drawing	-	Misread		_	J. 2c. 2000/3		1	
	Marks/Chatter					Drill Holes	Off-set							
	Turning Sequence					Finish	Out of Calibration							
	Wave/Twist in Tube					Fit/Function	Out of Sequence							

Work Order ID 114272 \*114272\* Page 8 March-04-14 2:59:56 PM Accept Item ID: D3391-023 \*N900040100\* Setup Start **Revision ID:** Stop **Item Name:** Mid Tube Assembly \*1\* **Start Date:** Start Qty: 1.00 04/03/2014 **Cust Item ID: Required Date:** 04/03/2014 Req'd Qty: 1.00 \*1\* **Customer:** Reference: Start Run Date: Approvals: Process Plan: **Tooling:** Date: Stop Date:\_\_\_\_\_ SPC (Y/N): Date: \*NP2\* Sequence ID/ **Operation** Set Up/ **Tool ID** Reject Tool # Plan Reject Accept Insp. **Work Center ID Description** Qty **Run Hours** Code Qty Number Stamp 260 QC21- Final Inspection - Work Order Release 0.00

0.00

Memo

\*260\*

Quality Control

MLJ 14-06-Z6

DQA:		Date:											
					WORK ORDER NON-CONFORMANCE / UPDATE  Work Order update only								
QA Closed:		Date:		. 1	<del> </del>	_			W	ork Order u	odate only		
Work Orde	r:				DISPOSITION			AGAINS	T DE	PARTMENT	/PROCESS		
			·		Rework			Skid-tube Crosstube		7	Water Jet	Engineering	
Part N	0.				Scrap			Machining Small Fal	-	e Pro	d. Eng. Coor.	Quality	
					Use-as-is			noforming Finishing	-	4	re/Packaging	Other	
NCR N	o				Suspected Unapproved			Large Fab Composite		]	Supplier		
	,												
Root				Desci	ription of work order update	1	Initial	Action		Sign &			
Cause	Date	Step	Qty		or non-conformance	Ch	ief Eng	Description		Date	Verification	QC Inspector	
Design													
Doc/Data											_		
Equip/Tooling					-						·		
Handling/Pre									-		٠.		
Material													
Operator					,								
Offset/Setup													
Process												1 1	
Supplier												<b>1</b>	
Training	_												
Transport	<b>⊣</b> .				•				•				
Jnapproved		<u> </u>	].		· · · · · · · · · · · · · · · · · · ·				jac <sup>®</sup>	**	<u>.</u>		
-	· <u> </u>					FAL	ULT CAT	EGORY	4				
Landin F	_				General	_	1	•	3	3		<b>-</b>	
	Bending				Bend		1	rogram	·	Outside Dim	<u></u>	Pressure/Forced	
-	Centre No	ot Conce	ntric		BOM/Route		Grain			Over/Under	<u> </u>	Set-up	
	Cracks				Broken/Damage/Defect		Hardwa		_	Part Incorre	<u> </u>	Temperature/Cure	
	Crimp/Kink/Ripple/Wave			-	Burrs		1	on Incomplete/Unqualified	$\vdash$	Part Lost/Mi	ssing	Weld	
-	Cuffs			-	Contamination		4	ions Incomplete/Unclear	$\vdash$	Part Moved		Wrong Stock Pulled	
-	Crushing Countersink					<u> </u>	1 .	ned/off center	$\vdash$	Positioned V		٦	
-	Heat Treat Cut Too Short					$\vdash$	Mislabe		حا	Power Loss/	Surge	Other	
-	Inspection Strip in Tube Drawing				_	$\vdash$	Misread	i		<u></u>			
-	Marks/Chatter Drill Holes					igspace	Off-set						
-	Turning S			<u> </u>	Finish	Out of Calibration							
	Wave/Tw	ist in Tuk	oe		Fit/Function		Out of S	Sequence					

#### **Picklist Print**

March-04-14 2:59:55 PM

Work Order ID: 114272

\*114272\*

Parent Item:

D3391-023

\*D3391-023\*

Parent Item Name: Mid Tube Assembly

Start Date: 04/03/2014

**Required Date:** 04/03/2014

Page 1

Start Qty: 1.00

Required Qty: 1.00

Comments:

IPP A05.10.20New Issue KJ/EC

IPP B06.02.10ECN773 dwg rev.D EC

IPP C 07.03.20 rev F dwg EC EC IPP D 07.03.28 re-format IPP E 07.10.31 ecn 1053P EC

IPP Rev:F ECN 1056 07-11-13 DD verified by: EC IPP Rev:G 08-09-08 new process (ecn 08-510) DD verified by:EC IPP Rev:H 08-09-10 revH as per dwg DD verified by:EC

IPP Rev: I 08-11-13 Removed steps per w/o, QC KJ verified by: ec IPP

Rev:J add in seq 140 expire date &b# sikaflex DD 10.02.17 verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty p	er Kit	Total Qty	Qty Issued	Date Issued	Status
D2500-1-100		Manufactured	No			100	Each	85.0000		1	1			
*D2500-1-	-100*								**	_		Bi	E140	6-24
				Location		Loc	Oty	Loc Code						
		•		HALL			85			_		_		
					82373	,	24			.—		- '		
					86065		61			. —		-		
D3389-1		Manufactured	No	_		140	Each	9.0000		1	1	~		
*D3389-1 <sup>3</sup>	*								**		12	( )		
Web											- 4		[11]	- 210
1				Location	1010	Loc	Oty	Loc Code		_	4		74	704
ļ				LG	114969		9			11	)	_		•
	•				113057		9	•				_		
D3681-1		Manufactured	No			160	Each	176.0000		5	5			
*D3681-13	*								**				RA,4	06-21
Spacer					•							0	1100	QQ
				Location	<u>.</u>	Loc	Oty	Loc Code				81	187	79
				LG001			176				•	_		
					108647	•	40			_				
					109109		136					_		

DQA:		Date:				TRAGE							
QA Closed:		Date:			WORK ORDER NON-	AEROSPACE							
Work Order:					DISPOSITION			AGAINST					
WOIK OIUE	··· ——				Rework	1		Skid-tube Crosstube	Г	]	Water Jet	$\neg$	Engineering
Part No.					Scrap			Machining Small Fab	-	l Pro	d. Eng. Coor.	$\dashv$	Quality
Tarcho.					Use-as-is			noforming Finishing	_	1	re/Packaging	٦	Other
NCR N	lo				Suspected Unapproved			Large Fab Composite			Supplier		
Root				Desci	ription of work order update		nitial	Action		Sign &			
Cause	Date	Step	Qty		or non-conformance	Ch	ief Eng	Description		Date	Verification		QC Inspector
Design													
Doc/Data													
Equip/Tooling													
Handling/Pre													
Material		İ										1	
Operator													
Offset/Setup													
Process													
Supplier			,									ı	
Training											,		
Transport												-	
Unapproved													
						FAI	ULT CA	TEGORY					-
Landir	ng Gear				General		-			•	-		
Į	Bending			Bend		L	Folio/F	Program	<u></u>	Outside Dim	ensions	_	Pressure/Forced
. ]	Centre	Not Conce	ntric		BOM/Route		Grain			Over/Under	tolerance	_ ։	Set-up
	Cracks				Broken/Damage/Defect		Hardwa	are	<u> </u>	Part Incorre		╝	Temperature/Cure
	Crimp/I	Kink/Ripple	e/Wave		Burrs		Inspect	ion Incomplete/Unqualified	L	Part Lost/Mi	ssing	╝,	Weld
Ĺ	Cuffs				Contamination		4	tions Incomplete/Unclear		Part Moved	Ĺ		Wrong Stock Pulled
	Crushin	g	Step Qty  oot Concentric  onk/Ripple/Wave  at  on Strip in Tube  hatter		Countersink	<u>_</u>	1	gned/off center		Positioned V			
Į	Heat Tr	eat			Cut Too Short	<u></u>	Mislabe			Power Loss/	Surge		Other '
Ĺ		=	Tube		Drawing		Misrea						
	Marks/	Chatter			Drill Holes	<u>_</u>	Off-set	•					
	Turning	s Sequence	<b>:</b> .		Finish		Out of	Calibration					
	Wave/	wist in Tu	be		Fit/Function		Out of	Sequence					

March-04-14 2:59:56 PM

Work Order ID: 114272

\*11*4272*\*

Parent Item:

D3391-023

\*D3391-023\*

Parent Item Name: Mid Tube Assembly

Start Date: 04/03/2014

2

**Required Date: 04/03/2014** 

Start Qty: 1.00

Required Qty: 1.00

D3591-1

Manufactured

Each

90.0000

Location	<u>Lo</u>	c Oty	Loc Code			
FG		10		_		
92873		10				
FP001		80				
100699		5				
107918		38				
109107		37				
	230	Each	1,176.000	20	20	

ALS4-1032-130

AELS4-1032-130 Purchased

## \*ALS4-1032-130\*

Rivnut

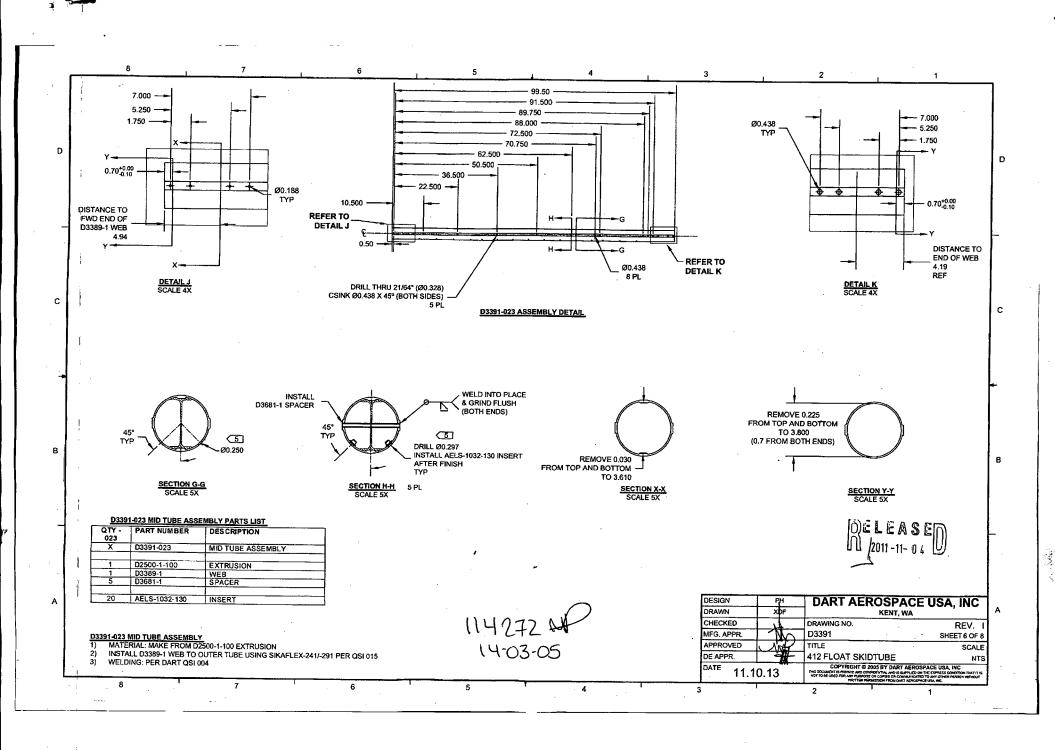
Location	<u>1</u>	Loc Oty	Loc Code	
ST279		1119		
	M128179	158		
	M128211	961		
st510		57		
	M126109	57	hir 1586712	_x Z.0

DH095.045 / B112308 (Ix) wearplate Assy Center

AN3 (-4A / M/128879 (124) bolts > M Wlock 26

NAS1149(0332R/M129499(12x) WAShons

DQA:		. Date:			_										
					WORK ORDER NON-CONFORMANCE / UPDATE										
QA Closed:		Date:							W	ork Order u	odate only				
Work Order:					DISPOSITION										
			<del></del>		Rework			Skid-tube Crosstub	oe 🗀	]	Water Jet	Engineering			
Part No.					Scrap			Machining Small Fa		Pro	d. Eng. Coor.	Quality			
					Use-as-is			noforming Finishir	-	4	re/Packaging	Other			
NCR No.					Suspected Unapproved			Large Fab Composit	-	i .	Supplier	1   1			
			·					- <u>L</u>		•					
Root				Descr	iption of work order update	١	nitial	Action		Sign &					
Cause	Date	Step	Qty		or non-conformance	Ch	ief Eng	Description		Date	Verification	QC Inspector			
Design															
Doc/Data		<b> </b> 	ļ		,										
Equip/Tooling															
Handling/Pre															
Material			ļ												
Operator			1									·			
Offset/Setup		<b>.</b> I* .													
Process			1 1												
Supplier	_		1 1												
Training	_														
Transport															
Unapproved		<u> </u>				<u> </u>		<b></b>		<u> </u>					
		<u> </u>				FAI	ULT CAT	regory							
Landin F	<del></del>				General		1			1		7_			
-	Bending			-	Bend-		1	rogram	$\vdash$	Outside Dim		Pressure/Forced			
-	Centre No	ot Concei .&	ntric		BOM/Route		Grain			Over/Under	<u> </u>	Set-up			
-	Cracks	· · · · · · ·	, ·		Broken/Damage/Defect	<u> </u>	Hardwa		$\vdash$	Part Incorred		Temperature/Cure			
}-	Crimp/Kin	ik/Ripple	e/Wave		Burrs	$\vdash$	1	ion Incomplete/Unqualified	$\vdash$	Part Lost/Mi	ssing	Weld			
-	Cuffs				Contamination	<u> </u>	•	ions Incomplete/Unclear	-	Part Moved		Wrong Stock Pulled			
-	Crushing Heat Trea			-	Countersink	$\vdash$	•	ned/off center	$\vdash$	Positioned V Power Loss/		Jothan			
}-	Inspection		Tuba	$\vdash$	Cut Too Short	-	Mislabe Misread		L	Trower ross/	ourge	Other			
-	Marks/Ch		rube	$\vdash$	Drawing Drill Holes	_	Off-set			<del></del>					
-	Turning Se			}	Finish	-	1	Calibration							
-					Fit/Function	<del> </del>	ł	Sequence							
	Wave/Twist in Tube				i iy i diledoli	ı	Jour or s	requence							



DQA:		······	Date:			: WORK ORDER NON-CONFORMANCE / UPDATE									_	DART
QA Closed:		• •	Date:			· · · · · · · · · · · · · · · · · · ·								odate only		AEROSPACE
Work Orde	er:			1.72		DISPOSITION				Ç.	AGAINST I	DEPART	MENT	/PROCESS		
Part No.					Rework Scrap Use-as-is			Skid-tube Crosstube  Machining Small Fab  Thermoforming Finishing			Pròd. Eng. Coor.				Engineering Quality Other	
NCR N	No.	·.				Suspected Unar		<b>8</b> .		Large Fab	Finishing Composite	- <b>-</b>				Other
Root		ile	The stage of		Desci	cription of work order update			nitial	Act	tion	Sig	gn & É	F 2		
Cause		Date	Step	Qty		or non-conforma	nce	Ch	ief Eng	Desc	ription	D	ate	Verificatio	n .	QC Inspector
Design Doc/Data										.4.		,		•		
Equip/Tooling Handling/Pre Material				4	-	<b>,</b> ;	`,	:		`						
Operator Offset/Setup		•														·
Process Supplier		٠					· ·									**************************************
Training				,		•										٠,
Transport	Ш															•
Unapproved	•	<u> </u>	<u> </u>			·		<u></u>								
		<del> </del>						FAL	JLT CAT	EGORY						
Landii						General	ſ	_	ii /m		. г	<del></del>				-
	-	Bending Centre No	at Conson	.+rio	` -	Bend BOM/Route	}	$\vdash$		rogram	-			ensions		ressure/Forced
	$\blacksquare$	Centre No Cracks	or concer	ILTIC	-	Broken/Damage/	Dofoct	$\vdash$	Grain Hardwa	ro ·	-		/unaer Incorrec	tolerance `	—	et-up
	-	cracks Crimp/Kir	k/Pinnle	Mayo		Burrs	pelect			re on Incomplete/Ui	ngualified		lncorrec Lost/Mi		_	emperature/Cure Veld
	-	Cuffs	ik/itippie/	vvave		Contamination		_	-	ions Incomplete/(	· · ·	_	Moved	some 🖈	_	Vrong Stock Pulled
	$\vdash$	Crushing				Countersink	ŀ	-		ned/off center	Jilcieai -		ioned W	drong	<b>'</b>	wrong Stock Fulled
	-	Heat Trea	ıt			Cut Too Short	ŀ	—	Mislabe		<u> </u>	—	er Loss/S	I		ther
,	Ь——	Inspection		Tube		Drawing	.	$\vdash$	Misreac		· L	<u> </u>				
, i	-	Marks/Ch	-			Drill Holes	, ·	-	Off-set	-		-				· · · · · · · · · · · · · · · · · · ·
		Turning S				Finish	ŀ	_		Calibration						
	_	Wave/Tw		e		Fit/Function	ŀ	-		equence			·			